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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,649	02/03/2004	Hartmut Ahrens	514413-3945	3687
7590 07/28/2006 FROMMER, LAWRENCE & HAUG LLP 745 Fifth Avenue New York, NY 10151			EXAMINER BALASUBRAMANIAN, VENKATARAMAN	
			ART UNIT 1624	PAPER NUMBER

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/771,649

Applicant(s)

AHRENS ET AL.

Examiner

Venkataraman Balasubramanian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/3/04, 8/30/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-7, in the reply filed on 5/22/2006, is acknowledged. Claims 8-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The traversal is on the ground(s) that the restriction requirement is improper for the following reasons.

a) the restriction requirement does not establish that searching all inventions would constitute an undue search burden and that the restriction requirement is contrary to public policy.

b) Restriction requirement is not consistent with MPEP § 809.03, linking claims.

This is not found persuasive for the following reasons.

1. First of all, as noted in the previous office action, the restriction requirement clearly adheres to MPEP § 806.04(b), 3<sup>rd</sup> paragraph and MPEP § 806.04(h) as Group II and Group I are related as mutually exclusive species in an intermediate-final product relationship. Hence, the restriction requirement is proper.

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2. As for search burden, Group I and Group II are directed to dissimilar compounds with varying cores such triazine vs. bicyclic carbocyclic and heterocyclic cores with varying number of hetero atoms and ring size. Group I and II require mutually exclusive search if a thorough search is intended. Classification of Group I is controlled by triazine core while Group II by bicyclic carbocyclic and heterocyclic cores with varying number of hetero atoms and ring size. It is mandatory to classify and search controlling cores. This is serious search burden as several classes and subclasses are to be searched.

Applicants' appear to imply that the intermediate has only triazine core based on class 544/208. This is not correct. There are three more intermediates with varying bicyclic cores with varying ring size and varying hetero atoms. Based on the choice of intermediate, the class/subclass are to be classified and searched. Search for triazine core would result in search for bicyclic cores generically embraced in Group II. Hence, contrary to applicants' urging it would be a serious search burden and the second criteria – the Search Burden-for restriction requirement is clearly met with. In short the restriction requirement clearly meets both requirement of MPEP § 803.

3. Thirdly, applicants' attention is drawn to the following paragraph include in the previous restriction requirement

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicants have not submitted evidence or identified such evidence now of record showing that the entire core groups to be obvious variants or clearly admitted on the record that all core groups embraced in the instant inventions are equivalent. In which case a prior art which anticipates any one of the groups embraced by a specific core (i.e. choices of I or II) may then render the other core group an obvious variant. In other words, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. In want of such assertion or evidence, searching the entire core would be serious search burden.

As for applicants' argument based on the linking groups, applicants' traversal is incorrect and lacks proper factual analysis.

Contrary to applicants' assertion, the two groups do not share the genus-species relationship. They do not have same overlapping limitations. Elected Group I relates to a Final product, which has defined herbicidal use while group II relates independent intermediates, which were not disclosed to any specific use. Thus criteria A is not applicable to these groups.

Contrary to applicants' assertion, the two groups are not related as product and process for making the product to be proper linking inventions. Thus, criteria AB is not applicable to the instant inventions.

Contrary to applicants' understanding, the instant inventions are not related means for practicing the linking process. As evident clearly Group I relates to Final product and its use not a linking process.

Contrary to applicants' argument, the instant inventions are not product and process of making and using. The compounds as noted above are final product and intermediates of different core structures.

Therefore, applicants' assertion that "claims 8-10 are linked to the invention of claim1, i.e. are species of the genus represented by claim 1 " is clearly incorrect and lacks understanding of linking invention. Group I and Group II are genus and species.

Based on these considerations, requirement is still deemed proper and is therefore made **FINAL**.

#### ***Information Disclosure Statement***

References cited in the Information Disclosure Statement filed on 2/3/04 and 8/30/04, are made of record.

#### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claims 2-7 are improper dependent claims. Recitation of "compound or a salt, thereof" renders claim 2-4 and salts in 5-7 lack proper antecedent basis > Note claim 1

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specifically limits salt to agriculturally acceptable salts while claims 2-7 do not have such limitation and read on any salt for which they lack antecedent basis.

2. Claim 4 is also indefinite for more than one reason. First of all, the processes a, b, c, and d appear to be distinct processes. But claim 4 appears to recite as though they are sequential process steps. Note an "or" is missing between these processes. but as the definition of H-R<sup>13</sup> is unclear. An appropriate correction is needed. Secondly, as recited the process c and d are confusing vague and clear as there are two definitions of R<sup>4</sup> and R<sup>5</sup>, one in claim 1 and the other in claim 4. Thus, R<sup>4</sup>-L<sup>2</sup> can be H-leaving group. It is not clear how such a group is expected to alkylate an amino group of claim 1. Thirdly, R<sup>4</sup> or R<sup>5</sup> is permitted in claim 4 to be a haloalkyl. A halogen group is a leaving group and would react with amine. What is the difference between these halo groups and the halogens as leaving groups. Indeed, the process a uses F in CF<sub>3</sub> , as leaving group.

3. Claim 7 provides for the use of compound of formula I, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 7 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al., EP 0864567.

Saito et al. teaches several diaminosubstituted triazine compounds, composition, process of making and method of use as herbicides, which include compound, composition, process and method of use claimed in the instant claims. See formula I shown in page 2 and note the definition of X, Y, R and n. See also formula I' in page 6. Note with the given definition of R, X, Y, the compounds taught by Saito et al. include instant compounds. See pages 5-9 for various preferred embodiments and process of making. Particularly, see Table 1-33 on pages 12-42 for examples of compounds made.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al., EP 0864567.

Teachings of Saito et al. as discussed in the above 102 rejection is incorporated herein. As noted above, Saito et al. teaches several diaminosubstituted triazine compounds, composition, process of making and method of use as herbicides, which include compound, composition, process and method of use claimed in the instant

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claims. Saito et al., does not teach all the compounds generically embraced in Formula I, with various X, Y and R choices. However, Saito et al. teaches equivalency of exemplified compounds with those generically claimed. Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds variously substituted in triazine ring as permitted by the reference and expect resulting compounds (instant compounds) to possess the uses taught by the art in view of the equivalency teaching outline above.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. WO 97/31904.

Lorenz et al. teach several 2-amino and 4-bicycloamino-1,3,5-triazines which generically include instant compounds for the same use as herbicides and plant growth regulators. See page 2 formula I and note the definition of  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $Y^1$ ,  $Y^2$ ,  $Y^3$  and  $n$ . Especially note when  $Y^1$  is a direct bond,  $R^3$  is  $Z^1-R^7$  wherein  $Z^1$  is a direct bond and  $R^7$  is hydrogen, the compounds taught by Lorenz et al. include instant compounds. See pages 3-22 for various preferred embodiments. See also the process of making shown on pages 22-33, which include the same as claimed in the instant claims. See Table I, pages 50-64, examples 1-658 for compounds made. Especially see page 53, compound 158, page 55, compounds 258 & 267, page 56, compound 284, page 57, compound 336, page 58, compound 388, page 59, compound 440, page 60, compound 492 and page 63, compound 590. Note all these compounds have a methyl group in the 6-position of the triazine.

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Lorenz et al teaches equivalency of the exemplified compounds shown in Table with those generically claimed for compound of formula I. See page 2 formula I and note the definition of  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $Y^1$ ,  $Y^2$ ,  $Y^3$  and  $n$ . Especially note when  $Y^1$  is a direct bond,  $R^3$  is  $Z^1-R^7$  wherein  $Z^1$  is a direct bond and  $R^7$  is hydrogen, the compounds taught by Lorenz et al. include instant compounds.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds variously substituted in the triazine ring including various bicycloamino group at 4-position as permitted by the reference and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Thus it would have been obvious to one skilled in the art at the time of the invention was made to expect instant compounds to possess the utility taught by the applied art in view of the close structural similarity outlined above.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/368,856. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter, namely, the amino-bycycloaminotriazine, composition and method of use claimed in the instant claims overlap with the subject matter, namely, the amino-bycycloaminotriazine, composition and method of use claimed in the copending application 10/368,856. Thus it would have been obvious to one skilled in the art at the time of the invention was made to expect instant compounds to possess the utility taught by the applied art in view of the close structural similarity outlined above.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### **Conclusion**

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned (571) 273-8300. Any

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inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

  
Venkataraman Balasubramanian

7/24/2006